

Amendments to the Claims:

Claims 1, 3, and 5 have been amended herein. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) An assembly method for a Chip On Board semiconductor device having a semiconductor die having a heat sink cap abutting a portion of a top surface of a substrate including:
placing a compliant adhesive-filled gel silicone elastomer between a portion of an upper surface of the semiconductor die and a portion of a lower surface of the heat sink cap, the heat sink cap surrounding the semiconductor die;
pressing the semiconductor die into the heat sink cap to engage the semiconductor die and heat sink cap in compliant removable adhesion and for causing the edge of the heat sink cap to abut the substrate; and
injecting an encapsulant into the heat sink cap through at least one hole therein engaging at least interior portions of the heat sink cap, at least portions of the semiconductor die, at least portions of the top surface of the substrate, and at least portions of the compliant adhesive-filled gel silicone elastomer.
2. (Previously Presented) The method of claim 1, wherein the compliant adhesive-filled gel silicone elastomer includes a cross-linked silicone.

3. (Currently Amended) An assembly method for a Chip On Board semiconductor device having a semiconductor die contained within a portion of a cap having a lower edge abutting a portion of a top surface of a substrate comprising:
positioning a compliant adhesive-filled gel silicone elastomer between the semiconductor die and
the cap, the cap surrounding the semiconductor die;
pressing the semiconductor die into the cap causing removable adhesion of the semiconductor die
and the cap and causing the lower edge of the cap to abut the substrate; and
injecting an encapsulant into the cap through at least one hole therein engaging at least interior
portions of the cap, at least portions of the semiconductor die, at least portions of the top
surface of the substrate, and at least portions of the compliant adhesive-filled gel silicone
elastomer.

4. (Previously Presented) The method of claim 3, wherein the adhesive-filled gel
silicone elastomer includes a metal-filled cross-linked silicone.

5. (Currently Amended) A method for assembling a Chip On Board semiconductor
device on a substrate, said Chip On Board semiconductor device having a semiconductor die and
a heat sink cap abutting a portion of a top surface of a substrate including:
providing a compliant adhesive-filled gel silicone elastomer between a portion of an upper
surface of the semiconductor die and a portion of a lower surface of the heat sink cap for
engaging the semiconductor die and heat sink cap in compliant removable adhesion for
abutting the edge of the heat sink cap to the substrate, the heat sink cap surrounding the
semiconductor die; and
placing an encapsulant into the heat sink cap through at least one hole therein for engaging
interior portions of the heat sink cap, portions of the semiconductor die, portions of the
top surface of the substrate, and portions of the compliant adhesive-filled gel silicone
elastomer.

6. (Previously Presented) The method of claim 5, wherein the compliant adhesive-filled gel silicone elastomer includes a cross-linked silicone.